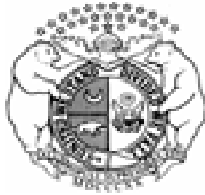


STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**  
MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No.	MO-0088668
Owner:	Boone County Regional Sewer District (BCSD)
Address:	1314 North 7 <sup>th</sup> Street, Columbia, Missouri 65201
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	BCSD, Hillview Acres Subdivision
Facility Address:	O'Rear Road, Columbia, Missouri 65205
Legal Description:	SW ¼, NW ¼, Sec. 11, T49N, R12W, Boone County
Latitude/Longitude:	+3902432/-09214284
Receiving Stream:	Unnamed Tributary to Hinkson Creek (U)
First Classified Stream and ID:	Hinkson Creek (C) (01008) 303(d) List
USGS Basin & Sub-watershed No.:	(10300102-120001)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

**FACILITY DESCRIPTION**

Outfall #001 - POTW – SIC #4952  
Facility description – Three-cell lagoon / sludge is retained in the lagoon  
Design population equivalent is 229.  
Design flow is 22,500 gallons per day.  
Actual flow is 22,000 gallons per day.  
Design sludge production is 3.4 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

August 18, 2006  
Effective Date

  
Doyle Childers, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

August 17, 2011  
Expiration Date

G. Irene Crawford, Director, Northeast Regional Office

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>					PAGE NUMBER 2 of 5	
					PERMIT NUMBER MO-0088668	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until four (4) years and 364-days from the issuance of this permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	once/quarter**	24hr. estimate
Biochemical Oxygen Demand <sub>5</sub> ****	mg/L		65	45	once/quarter**	grab
Total Suspended Solids****	mg/L		120	80	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Ammonia as N	mg/L	*		*	once/quarter**	grab
Fecal Coliform (Note 1)	#/100ml	*		*	once/quarter**	grab
Temperature	°C	*		*	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2006</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II, &amp; III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** (continued)

- \* Monitoring requirement only.
- \*\* Sample once per quarter in the months of March, June, September, and December.
- \*\*\* pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 standard units.
- \*\*\*\* This facility is required to meet a removal efficiency of 65% or more.

**Note 1 – Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.**

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 5	
PERMIT NUMBER MO-0088668						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective one (1) day before the date of expiration of this permit and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	once/quarter**	24hr. estimate
Biochemical Oxygen Demand <sub>5</sub> ****	mg/L		65	45	once/quarter**	grab
Total Suspended Solids****	mg/L		120	80	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Ammonia as N	mg/L	*		*	once/quarter**	grab
<b>Fecal Coliform (Note 1)</b>	<b>#/100ml</b>	<b>1000</b>		<b>400</b>	once/quarter**	grab
Temperature	°C	*		*	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2011</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II, &amp; III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

#### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* Sample once per quarter in the months of March, June, September, and December.
- \*\*\* pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 standard units.
- \*\*\*\* This facility is required to meet a removal efficiency of 65% or more.

Note 1 – Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

### C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to area-wide wastewater treatment system within 90 days of notice of its availability.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
    - (4) The level established in Part A of the permit by the Director.
  - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.
  6. Water Quality Standards
    - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
    - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
      - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
      - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
      - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
      - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
      - (5) There shall be no significant human health hazard from incidental contact with the water;
      - (6) There shall be no acute toxicity to livestock or wildlife watering;
      - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
      - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

C. SPECIAL CONDITIONS (continued)

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
  - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
  - (b) If sludge is not removed by a contract hauler, Permittee is authorized to land apply biosolids that are removed from the domestic wastewater treatment lagoon during lagoon clean-out and maintenance activities. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids from the lagoon. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

D. SCHEDULE OF COMPLIANCE

1. The final daily maximum and monthly average Fecal Coliform limits of 400/100ml and 1000/100ml , respectively, shall become effective one day prior to the expiration date of the permit or December 31, 2013, whichever comes first unless items (b) or (c) below are approved by the Department. The Effluent Regulation, 10 CSR 20 – 7.015(9)(H), allows the permittee up to five years from the issuance date of this permit to:
  - (a) Install disinfection facilities, or;
  - (b) Present an evaluation to show that disinfection is not required to protect one or both recreational uses, or;
  - (c) Present a Use Attainability Analysis (UAA) that demonstrates one or both designated recreational uses are not attainable in the classified waters receiving the effluent.
2. If chlorination is the chosen method of disinfection, a Total Residual Chlorine limit will be added to the permit.

Date of Fact Sheet: June 2, 2006

Date of Public Notice: July 7, 2006

## NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0088668

FACILITY NAME: BCSD, Hillview Acres

OWNER NAME: Boone County Regional Sewer District (BCSD)

LOCATION: SW ¼, NW ¼, Sec. 11, T49N, R12W Boone County:

RECEIVING STREAM: Unnamed Tributary to Hinkson Creek (U)

FIRST CLASSIFIED STREAM: Hinkson Creek (C) (01008) 303(d) List

FACILITY CONTACT PERSON: Dwayne Cooksey

TELEPHONE: (573) 441-0098

### FACILITY DESCRIPTION

The facility is a three-cell lagoon with a design flow of 22,500 gallons per day (gpd). The current actual flow is estimated to be about 22,000 gpd. Sludge is retained in the lagoon.

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Director of the Department of Natural Resources under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended).

10 CSR 20-7.031 Missouri Water Quality Standards, Missouri Department of Natural Resources (the Department) "defines the Clean Water Commission water quality objectives in terms of water uses to be maintained and the criteria to protect those uses." The receiving stream for the facility's discharge is an unnamed tributary to Hinkson Creek, and unclassified stream. The facility is about one-half mile from the confluence of the tributary and Hinkson Creek, a Class C stream: Streams that may cease flow in dry periods but maintain permanent pools which support aquatic life [10 CSR20-7.031(1)(F)6.]. Hinkson Creek is also on the Impaired Waters List [the 303(d) List] for unknown pollutants. The receiving stream's beneficial water uses to be maintained are livestock and wildlife watering, protection of aquatic life and human health—fish consumption, whole body contact and secondary contact recreation. A Use Attainability Analysis (UAA) was conducted for Hinkson Creek, and the Commission retained whole body contact recreation.

To protect these beneficial uses and the water quality of the receiving stream, effluent limitations are being established under federal and state laws.

### EFFLUENT LIMIT DERIVATION & RATIONALE

Permit limits have been retained from the previous permit. A Water Quality Review Sheet was therefore not developed. Monitoring requirements have been added for ammonia (reflecting the adoption of the U. S. Environmental Protection Agency's "1999 Update of Ambient Water Quality Criteria for Ammonia") to determine if a "reasonable potential" for water quality standards to be exceeded. Monitoring requirements have also been added for temperature. Due to the designation of Hinkson Creek as whole body contact, interim monitoring and final effluent limits for fecal coliform have been added. A four-year 364-day schedule of compliance for meeting the fecal coliform limits was also added.

This permit will be issued for a period of five years.